Central Bureau for Astronomical Telegrams INTERNATIONAL ASTRONOMICAL UNION

Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A. IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions) CBAT@CFA.HARVARD.EDU (science)

URL http://cfa-www.harvard.edu/iau/cbat.html ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

V378 SERPENTIS = POSSIBLE NOVA IN SERPENS

E. Kazarovets and N. N. Samus, Institute of Astronomy, Russian Academy of Sciences, inform us that the designation V378 Ser has been given to the nova first announced on IAUC 8505.

A. Ederoclite, E. Mason, and M. Stefanon, European Southern Observatory, report that spectroscopic observations, made on Apr. 5.38 UT at the La Silla 2.2-m telescope (+ FEROS; spectral range 380–900 nm, resolution 48000), confirm that V378 Ser is a 'Fe II' nova in outburst, with the spectrum dominated by strong H α and O I (1) and (4) emission lines at 777.3 and 844.6 nm. The low ionization emission lines from Fe II (multiplets 27, 28, 37, 42, 48, 49, and 74), Na I (21), and Ca II (1) are also present. All the Balmer and the O I lines are flanked by strong, double P-Cyg absorptions, which provide average expansion velocities of 1340 \pm 40 and 820 \pm 40 km/s. The bluest P-Cyg absorption is very broad and results from a blend of two distinct absorptions; these two components are clearly resolved in the Fe II multiplet 42, providing expansion velocities of \sim 1350 and \sim 1200 km/s. The interstellar extinction appears relatively high due to the fact that the Na D absorption is saturated.

H. Yamaoka, Kyushu University, communicates that M. Fujii (Okayama, Japan) obtained a spectrogram of this nova on Apr. 4.80 UT with a 0.28-m telescope. The spectrum shows strong and broad Balmer emission lines (FWHM = 1100 km/s for H α) with P-Cyg profile and several Fe II and O I 777.3-nm emission lines, which suggests that it is a Fe II-class nova somewhat after maximum light.

A. Takao, Kitakyushu, Japan, reports the following magnitudes for the nova from his unfiltered CCD patrol images taken with a 120-mm f/4 zoom telephoto lens: Feb. 21.847 UT, [13.0; 27.866, [13.0; Mar. 6.855, [13.0; 15.847, [13.0; 20.842, 12.8; 30.818, 12.8.

SUPERNOVA 2005be

Further to IAUC 8504, T. Puckett and T. Orff report the discovery of an apparent supernova (mag 17.7) on an unfiltered CCD frame taken with the 0.60-m automated supernova patrol telescope on Apr. 5.27 UT. The new object was confirmed on CCD frames taken on Apr. 6.21 (at mag 16.0). SN 2005be is located at $\alpha=14^{\rm h}59^{\rm m}32^{\rm s}.72$, $\delta=+16^{\rm o}40'11''.6$ (equinox 2000.0), which is 5" west and 5" north of the center a galaxy that is near UGC 9640. Nothing is visible at this location on images taken by Puckett on 2002 Apr. 19 and 2003 Mar. 23 (limiting mag ~ 20.0).